

## LISTING OF CLAIMS

The following is a complete listing of the claims in this application, reflects all changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims:

Claim 1 (Currently Amended): A bone screw having a longitudinal axis comprising: a threaded shaft which includes a threaded section with an external diameter  $D_A$ , a frontal thread end of the threaded section, and a thread profile, wherein the thread profile has a front threaded flank directed towards the frontal thread end [[(4)]] of the threaded section, a rear threaded flank and a flank angle  $\beta$ , wherein the threaded section has a multiple thread, and each thread of the threaded section at the frontal thread end of the threaded section has a knife-like element with an outer edge and a cutting edge formed/disposed on the outer edge, and wherein the knife-like element, viewed from the frontal thread end of the bone screw, is sickle-shaped.

Claim 2 (Previously Presented): A bone screw according to claim 1, wherein the threaded section has a double thread.

Claim 3 (Previously Presented): A bone screw according to claim 1, wherein the cutting edge encloses a sector angle  $\alpha$  of at least  $45^\circ$  and preferably of at least  $55^\circ$  of a thread.

Claim 4 (Previously Presented): A bone screw according to claim 1, wherein the cutting edge is curved convexly.

Claim 5 (Previously Presented): A bone screw according to claim 3, wherein the sector angle  $\alpha$  is between  $45^\circ$  and  $200^\circ$  of a thread.

Claim 6 (Previously Presented): A bone screw according to claim 5, wherein the sector angle  $\alpha$  is between  $55^\circ$  and  $200^\circ$  of a thread.

Claim 7 (Previously Presented): A bone screw according to claim 1, wherein the knife-like element encloses an angle  $\beta$  of between  $10^\circ$  and  $60^\circ$  with the rear threaded flank.

Claim 8 (Previously Presented): A bone screw according to claim 7, wherein the knife-like element encloses an angle  $\beta$  of between  $15^\circ$  and  $35^\circ$  with the rear threaded flank.

Claim 9 (Previously Presented): A bone screw according to claim 1, wherein the

cutting edge between the core and a tip of the thread is constructed helically.

Claim 10 (Previously Presented): A bone screw according to claim 1, wherein the knife-like element has a cutting angle  $\gamma'$  of between  $20^\circ$  and  $60^\circ$  at least at a tip of the threaded section.

Claim 11 (Previously Presented): A bone screw according to claim 10, wherein the knife-like element has a cutting angle  $\gamma'$  of between  $35^\circ$  and  $50^\circ$  at least at the tip of the threaded section.

Claim 12 (Previously Presented): A bone screw according to claim 1, wherein the knife-like element has a constant cutting angle  $\gamma$ .

Claim 13 (Previously Presented): A bone screw according to claim 1, wherein the front end of the threaded section coincides with the frontal thread end of the bone screw.

Claim 14 (Previously Presented): A bone screw according to claim 13, wherein the front end is convex.

Claim 15 (Previously Presented): A bone screw according to claim 13, wherein the front end of the bone screw comprises a facet, which encloses an angle  $\varphi$  of between  $30^\circ$  and  $90^\circ$  with the longitudinal axis.

Claim 16 (Canceled)

Claim 17 (Previously Presented): A bone screw according to claim 1, wherein the threaded section comprises at least two thread ridges, which have a flank angle  $\delta$  at the core of the threaded section and a flank angle  $\delta'$  at the periphery of the thread.

Claim 18 (Previously Presented): A bone screw according to claim 17, wherein the flank angle  $\delta$  at the core of the threaded section is larger than the flank angle  $\delta'$  at the periphery of the thread.

Claim 19 (Canceled)

Claim 20 (New) A bone screw having a proximal end, a distal end and a longitudinal axis comprising:

a threaded shaft, having a thread profile, which includes a threaded section with an

external diameter  $D_A$ ,

wherein the thread profile has a front threaded flank directed towards the distal end of the bone screw, a rear threaded flank and a flank angle  $\beta$ ,

wherein the threaded section has a multiple thread, and each thread of the threaded section has a knife-like element with an outer edge and a cutting edge formed/disposed on the outer edge, and

wherein the knife-like element, disposed towards the distal end of the bone screw, is sickle-shaped.